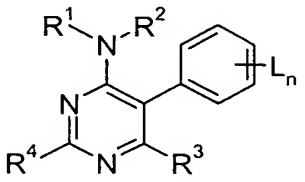
We claim:

1. A 2-substituted pyrimidine of the formula I



I

in which the index and the substituents are as defined below:

n is an integer from 1 to 5, where at least one substituent L is located in the ortho-position on the phenyl ring;

L is halogen, cyano, cyanato (OCN), nitro, C_1-C_8-alkyl, C_2-C_{10}-alkenyl, C_2-C_{10}-alkynyl, C_1-C_6-alkoxy, -C(=O)-A, -C(=O)-O-A, -C(=O)-N(A')A, C(A')(=N-OA), N(A')A, N(A')-C(=O)-A, N(A")-C(=O)-N(A')A, $S(=O)_m$-A, $S(=O)_m$-O-A or $S(=O)_m$-N(A')A,

m is 0, 1 or 2;

A, A', A" independently of one another are hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_8-cycloalkyl, C_3-C_8-cycloalkenyl, phenyl, where the organic radicals may be partially or fully halogenated or may be substituted by cyano or C_1-C_4-alkoxy; or A and A' together with the atoms to which they are attached are a five- or six-membered saturated, partially unsaturated or aromatic heterocycle which contains one to four heteroatoms from the group consisting of O, N and S;

where the aliphatic, alicyclic or aromatic groups of the radical definitions of L for their part may be partially or fully halogenated or may carry one to four groups R^u:

R^u is halogen, cyano, C_1-C_8-alkyl, C_2-C_{10}-alkenyl, C_2-C_{10}-alkynyl, C_1-C_6-alkoxy, C_2-C_{10}-alkenyloxy, C_2-C_{10}-alkynyloxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, C_3-C_6-cycloalkoxy, C_3-C_6-cycloalkenyloxy, -C(=O)-A, -C(=O)-O-A, -C(=O)-N(A')A, C(A')(=N-OA), N(A')A, N(A')-C(=O)-A, N(A")-C(=O)-N(A')A, $S(=O)_m$-A, $S(=O)_m$-O-A or $S(=O)_m$-N(A')A, where m, A, A', A" are as defined above and where the aliphatic, alicyclic or aromatic groups for their part may be partially or fully halogenated or may carry

one to three groups R^v, R^v having the same meaning as R^u;

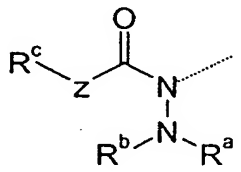
R^1, R^2 independently of one another are C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_6-haloalkyl, C_3-C_6-halocycloalkyl, C_2-C_6-haloalkenyl or C_2-C_6-haloalkynyl;

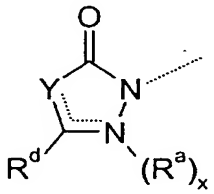
R^2 may additionally be hydrogen;

R^1 and R^2 may also, together with the nitrogen atom to which they are attached, form a saturated or unsaturated five- or six-membered ring which may be interrupted by an ether (–O–), carbonyl C[=O]-, thio (–S–), sulfoxyl (–S[=O]–) or sulfenyl (–SO_2–) group;

R^3 is halogen, cyano, C_1-C_4-alkyl, C_2-C_4-alkenyl, C_2-C_4-alkynyl, C_1-C_4-alkoxy, C_3-C_4-alkenyloxy or C_3-C_4-alkynyloxy, where the alkyl, alkenyl and alkynyl radicals of R^3 may be substituted by halogen, cyano, nitro, C_1-C_2-alkoxy or C_1-C_4-alkoxycarbonyl;

R^4 corresponds to one of the formulae





where

x is 0 or 1;

R^a, R^b and R^c independently of one another are hydrogen, C_1-C_6-alkyl, C_2-C_8-alkenyl, C_2-C_8-alkynyl, C_3-C_6-cycloalkyl, C_4-C_6-cycloalkenyl,

R^a, R^b together with the nitrogen atom to which they are attached may have the meaning R^c-Z-C(R^d)=N;

Z is oxygen or N-R^c;

Y is C(H)-R^e, C-R^e , N-N(H)-R^c or N-R^c;

⋯ may be a double bond or a single bond;

R^d, R^e have the same meanings as R^c and may additionally be halogen or cyano;

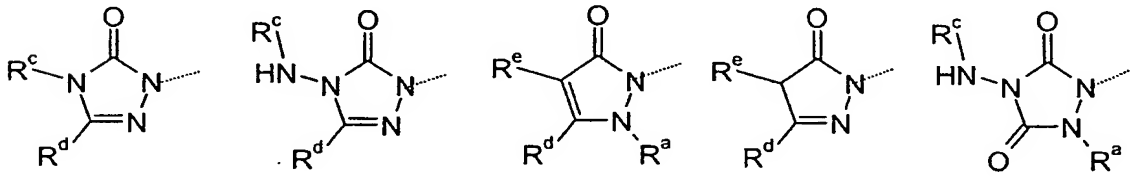
R^d together with the carbon to which it is attached may be a carbonyl group;

where the aliphatic, alicyclic or aromatic groups of the radical definitions of R^a, R^b, R^c, R^d or R^e for their part may be partially or fully halogenated or may carry one to four groups R^w:

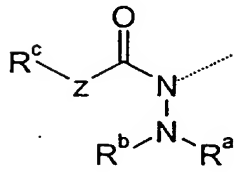
R^w is halogen, cyano, C_1-C_8-alkyl, C_2-C_{10}-alkenyl, C_2-C_{10}-alkynyl, C_1-C_6-alkoxy, C_2-C_{10}-alkenyloxy, C_2-C_{10}-alkynyloxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, C_3-C_6-cycloalkoxy, C_3-C_6-cycloalkenyloxy, and where two of the radicals R^a, R^b or R^c together with the atoms to which they are attached may form a five- or six-membered saturated, partially unsaturated or aromatic heterocycle which contains one to four heteroatoms from the group consisting of O, N and S.

2. The 2-substituted pyrimidine according to claim 1 where R^3 is chlorine, cyano, methyl, ethyl or bromine.

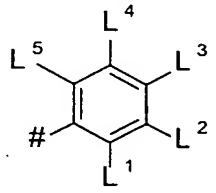
3. The 2-substituted pyrimidine according to claim 1 where R^4 is one of the formulae



4. The 2-substituted pyrimidine according to claim 1 where R^4 corresponds to the formula



5. The 2-substituted pyrimidine according to any of claims 1 to 6 which the phenyl group substituted by L_n is the group B

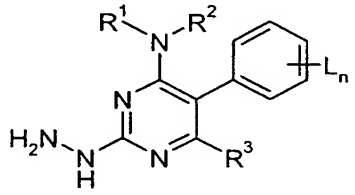


B

where # is the point of attachment to the pyrimidine skeleton and

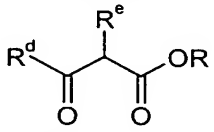
L^1 is fluorine, chlorine, CH_3 or CF_3;
L^2, L^4 independently of one another are hydrogen, CH_3 or fluorine;
L^3 is hydrogen, fluorine, chlorine, cyano, CH_3, SCH_3, OCH_3, SO_2CH_3, NH-C(=O)CH_3, N(CH_3)-C(=O)CH_3 or $COOCH_3$ and
L^5 is hydrogen, fluorine, chlorine or CH_3.

6. A process for preparing 2-substituted pyrimidines of the formula I according to claim 3 where R^4 is a pyrazolone, which comprises condensing a compound of the formula II



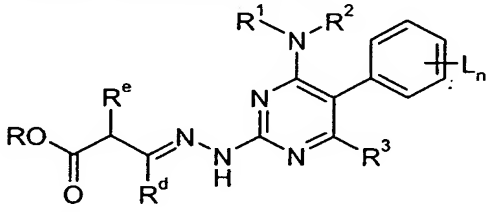
II

in which the substituents L, R^1, R^2 and R^3 are as defined in claim 1 with a 1,3-dicarbonyl compound of the formula III



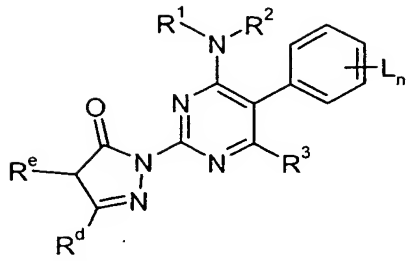
III

in which R^d and R^e are as defined in claim 1 and R is a C_1-C_6-alkyl radical, and then cyclizing the resulting compound IV



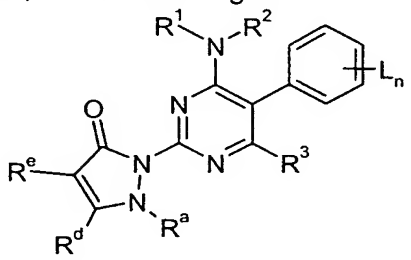
IV

with a base to give IA



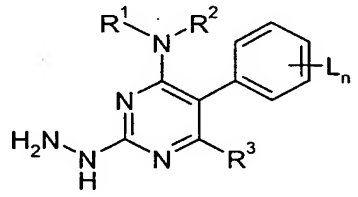
IA

which is, if appropriate, isomerized to give IB



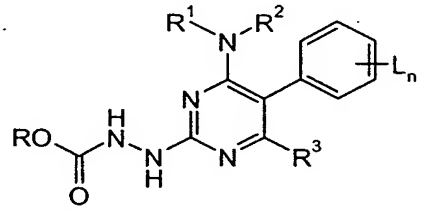
IB

7. A process for preparing 2-substituted pyrimidines of the formula I according to claim 3 where R^4 is a triazoldione, which comprises acylating a compound of the formula II



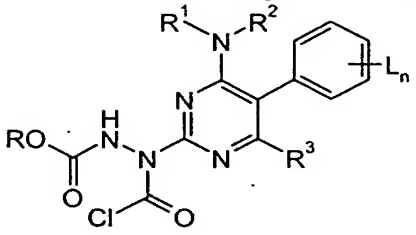
II

in which the substituents L, R^1, R^2 and R^3 are as defined in claim 1 with a chloroformic ester of the formula $ClCO_2R$ where the substituent R is C_1-C_6-alkyl, giving the compound V;



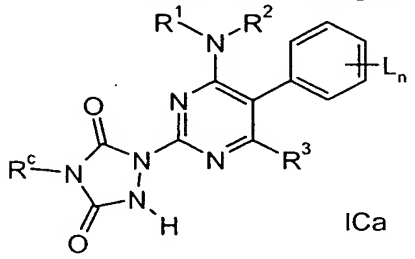
V

then reacting compound V with a phosgene derivative to give VI,

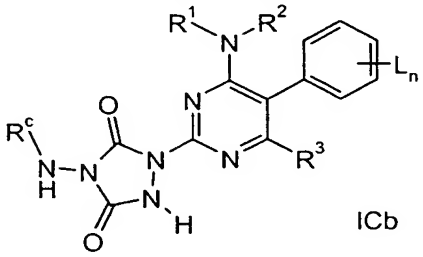


VI

furthermore cyclizing VI with an amine of the formula R^cNH_2 or with a hydrazine of the formula $R^cNH\text{-}NH_2$ to give compounds ICa and Icb, respectively, and,

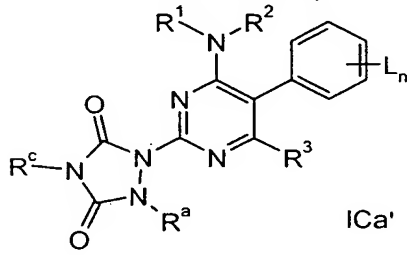


ICa

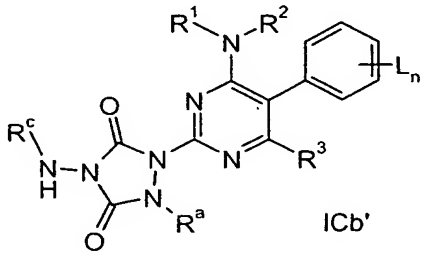


ICb

if appropriate, reacting further with an alkylating agent of the formula R^aX, where R^a is as defined above and X is a leaving group, such as halide or sulfate, to give ICa' and ICb', respectively.

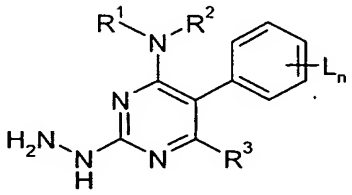


ICa'



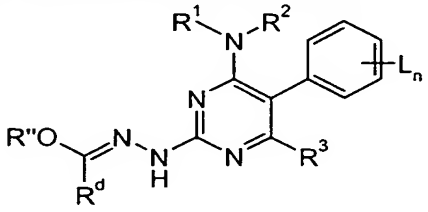
ICb'

8. A process for preparing 2-substituted pyrimidines of the formula I according to claim 3 where R^4 is a triazoldione, which comprises condensing a compound of the formula II



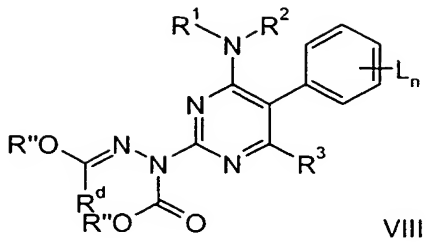
II

in which the substituents L, R^1, R^2 and R^3 are as defined in claim 1 with an orthoester of the formula $R^dC(OR'')_3$ where the substituent R^d is as defined above and R'' is C_1-C_6-alkyl, giving the compound VII;



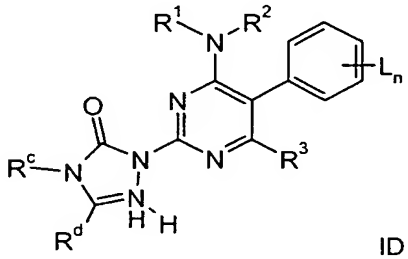
VII

then acylating compound VII with a chloroformic ester of the formula $ClCO_2R''$, where the substituent R'' is C_1-C_6-alkyl, to give compound VIII



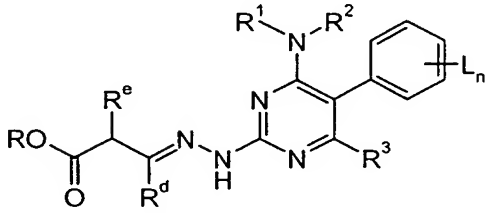
VIII

and furthermore cyclizing VIII with an amine of the formula R^cNH_2 to give compound ID



ID

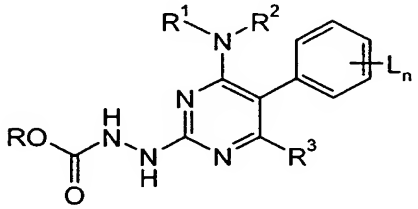
9. A compound of the formula IV



IV

where the substituents R^1, R^2, R^3, L_n, R^e and R^d are as defined in claim 1 and the substituent R is a C_1-C_6-alkyl radical.

10. A compound of the formula V



V

where the substituents R^1, R^2, R^3 and L_n are as defined in claim 1 and the substituent R is a C_1-C_6-alkyl radical.

11. A composition suitable for controlling harmful fungi, which composition comprises a solid or liquid carrier and a compound of the formula I according to claim 1.

12. A method for controlling phytopathogenic harmful fungi which comprises treating the fungi or the materials, plants, the soil or the seeds to be protected against

fungal attack with an effective amount of a compound of the formula I according to claim 1.